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Patent  
Attorney Docket No. 895,675-173

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Group Art Unit: 2621

**KLINGENSMITH et al.**

Serial No. 10/649,473

Filed: August 26, 2003

For: SYSTEM AND METHOD FOR  
IDENTIFYING A VASCULAR  
BORDER

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97–1.98,  
information relating to the above-identified application is hereby disclosed. The  
accompanying Form PTO–1449 provides a listing of documents that may be relevant to the  
subject application.

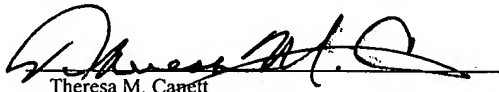
It is requested that the Examiner fully consider the art cited in the accompanying Form  
1449, initial the left–most column of the form adjacent each cited reference, and return a copy  
for Applicants' records. It is further requested that the art be cited on the cover of any patent  
issuing from the subject application.

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CERTIFICATE OF MAILING (37 C.F.R. §1.8a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

September 9, 2005  
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Theresa M. Canett

This IDS is believed to be timely in that it is being submitted under 37 CFR § 1.97(b), that is (1) within three months of the filing date of the application, which is not a continued prosecution application filed under § 1.53(d); or (2) within three months of entry of the national stage as set forth in 37 CFR § 1.491; or (3) before the mailing of a first Office action on the merits; or (4) before the mailing of a first Office action after filing a request for continued examination under § 1.114. Thus, no fee is required.

This statement should not be construed as a representation that more material information does not exist or that an exhaustive search of the relevant art has been made. Nor does this statement constitute an admission by Applicants or Applicants' agent that the information provided herein is necessarily prior art to Applicants' invention. Moreover, Applicants reserve the right to establish the patentability of the claimed invention over any of the listed documents should they be applied there-against as references.

Respectfully submitted,

O'MELVENY & MYERS LLP

Dated: 9/9/05

By John Kappos

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<div style="border: 2px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 8px;">OFFICE OF PATENT &amp; TRADEMARK</div> <div style="text-align: center;"> <div style="font-size: 12px;">SEP 12 2005</div> </div> </div>		Application No. <span style="border: 1px solid black; padding: 2px;">10/649,473</span>  Filing Date <span style="border: 1px solid black; padding: 2px;">August 26, 2003</span>  First Named Inventor <span style="border: 1px solid black; padding: 2px;">KLINGENSMITH</span>  Art Unit <span style="border: 1px solid black; padding: 2px;">2621</span>  Examiner Name <span style="border: 1px solid black; padding: 2px;">Not yet assigned</span>  Attorney Docket No. <span style="border: 1px solid black; padding: 2px;">895,675-173</span>			

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1.	6,106,465	08/22/2000	Napolitano	
	2.	6,120,445	09/19/2000	Grunwald	
	3.	6,381,350	04/30/2002	Klingensmith	

### FOREIGN PATENTS

Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	4.	0 633 548		Lobregt		

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s) volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	5.	BRUINING, N., VON BIRGELEN, C., DE FEYTER, P., LIGTHART, J., SERRUYS, P., ROELANDT, J., "Dynamic Imaging of Coronary Stent Structures: An ECG-Gated Three-Dimensional Intracoronary Ultrasound Study In Humans", Ultrasound in Medicine and Biology, 1998, pp. 631-637, Vol. 24, No. 5, Elsevier, New York, U.S.A.	
	6.	IWASE, M., KONDO, T., HASEGAWA, K., KIMURA, M., MATSUYAMA, H., WATANABE, Y., HISHIDA, H., "Three-Dimensional Echocardiography by Semi-Automatic Border Detection in Assessment of Left Ventricular Volume and Ejection Fraction: Comparison with Magnetic Resonance Imaging", Journal of Cardiology, 1997, pp. 97-105, Vol. 30, No. 2, Japanese College of Cardiology, Tokyo, Japan	
	7.	KLINGENSMITH, J., VINCE, D., KUBAN, B., SHEKHAR, R., TUZCU, E., NISSEN, S., CORNHILL, J., "Assessment of Coronary Compensatory Enlargement by Three-Dimensional Intravascular Ultrasound", International Journal of Cardiac Imaging, 2000, pp. 87-98, Vol. 16, No. 2, Nijhoff, Boston, U.S.A.	
	8.	KLINGENSMITH, J., SHEKHAR, R., VINCE, D., "Evaluation of Three-Dimensional Segmentation Algorithms for the Identification of Luminal and Medial-Adventitial Borders in Intravascular Ultrasound Images", IEEE Transactions on Medical Imaging, 2000, pp. 996-1011, Vol. 19, No. 10, Institute of Electrical and Electronics Engineers, New York, U.S.A.,	
	9.	LOBREGT, S., VIERGEVER, M., "A Discrete Dynamic Contour Model", IEEE Transactions on Medical Imaging, 1995, pp. 12-24, Vol. 14, No. 1, Institute of Electrical and Electronics Engineers, New York, U.S.A.	

NB1:662756. 1Examiner Signature	Date Considered	
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	10.	NAIR, A., KUBAN, B., OBUCHOWSKI, N., VINCE, D., "Assessing Spectral Algorithms to Predict Atherosclerotic Plaque Composition with Normalized and Raw Intravascular Ultrasound Data", Ultrasound in Medicine and Biology, 2001, pp. 1319-1331, Vol. 27, No. 10, Elsevier, New York, U.S.A.	
	11.	SEBBAHI, A., HERMENT, A., DE CESARE, A., MOUSSEAU, E., "Multimodality Cardiovascular Image Segmentation Using a Deformable Contour Model", Computerized Medical Imaging and Graphics, 1997, pp. 79-89, Vol. 21, No. 2, Pergamon Press, New York, U.S.A.	
	12.	TSUTSUI, H., ZIADA, K., SCHOENHAGEN, P., IYISOY, A., MAGYAR, W., CROWE, T., KLINGENSMITH, J., VINCE, D., RINCON, G., HOBBS, R., YAMAGISHI, M., NISSEN, S., TUZCU, E., "Lumen Loss in Transplant Coronary Artery Disease is a Biphasic Process Involving Early Intimal Thickening and Late Constrictive Remodeling: Results from a 5-Year Serial Intravascular Ultrasound Study", Circulation, 2001, pp. 653-657, Vol. 104, No. 6, American Heart Association, Dallas, U.S.A.	
	13.	VON BIRGELEN, C., DI MARIO, C., LI, W., SCHUURBIERS, J., SLAGER, C., DE FEYTER, P., ROELANDT, J., SERRUYS, P., "Morphometric Analysis in Three-Dimensional Intracoronary Ultrasound: An In Vitro and In Vivo Study Performed with a Novel System for the Contour Detection of Lumen and Plaque", American Heart Journal, 1996, pp. 516-527, Vol. 132, No. 3, Elsevier, St. Louis, U.S.A.	
	14.	VON BIRGELEN, C., DE VREY, E., MINTZ, G., NICOSIA, A., BRUINING, N., LI, W., SLAGER, C., ROELANDT, J., SERRUYS, P., DE FEYTER, P., "ECG-Gated Three-Dimensional Intravascular Ultrasound: Feasibility and Reproducibility of the Automated Analysis of Coronary Lumen and Atherosclerotic Plaque Dimensions in Humans", Circulation, 1997, pp. 2944-2952, Vol. 96, No. 9, American Heart Association, Dallas, U.S.A.	

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